

**REMARKS**

Claims 1 and 33-92 are all the claims pending in the application. By this Amendment, Applicant amends claims 1, 40, 58, and 91.

**Claim Rejections - 35 U.S.C. § 112**

**Claims 1 and 33-64 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.** Applicant respectfully traverses the rejection.

MPEP §§ 2161 to 2163 governs examination of claims under the written description requirement. Specifically, MPEP § 2163 states, in part (emphasis added):

To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can **reasonably** conclude that the inventor had possession of the claimed invention. *See, e.g., Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319, 66 USPQ2d 1429, 1438 (Fed. Cir. 2003); *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d at 1563, 19 USPQ2d at 1116.

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While there is no in *haec verba* requirement, newly added claim limitations must be supported in the specification through **express, implicit, or inherent disclosure**.

...

The fundamental factual inquiry is whether the specification conveys with **reasonable clarity** to those skilled in the art that, as of the filing date sought, Appellant was in possession of the invention as now claimed. *See, e.g., Vas-Cath, Inc.*, 935 F.2d at 1563-64, 19 USPQ2d at 1117.

Independent claim 1 recites, *inter alia*, “a tuner that receives the transmitted broadcast signal, the transmitted broadcast signal containing data...a processor, coupled to the tuner...that processes the received broadcast signal to obtain the data, stores the data as a database in the memory or updates the database according to the data.” Similar recitations appear in independent claim 58.

Page 7, line 24, to page 8, line 7, of the filed specification discloses (emphasis added):

For full effectiveness the information dissemination devices needs to be on 24 hours a day. In order to conserve power the received data could be first stored in random access memory (RAM) which consumes little power and when the RAM is full dumped to a more permanent storage medium such as a digital audio tape, a magneto-optical mini-disk, a magnetic disk or an optical disk, sufficient to store information for 10 hours or more of audio. The speech producing device 30 may be a digital to analog converter that converts digitized and decompressed audio data into understandable and well modulated audio signals. The audio signals are provided on line 34 to a conventional audio amplifier 36 and hence to a loud speaker or earphones 38 to be listened to by the user. [T]uner 12, microcontroller 20, conditional access circuitry 16 and memory 28 typically remain powered at all times (by batter power if necessary) to receive a continuous update of the broadcast database, and thereby to store current news in memory 28.

Page 13, lines 1 to 9, of the filed specification also discloses (emphasis added):

In order to accommodate the fact that some subscribers may not have their units on when certain data is transmitted, it is apparent that the sending facility will need to update the data base from time to time during the day even if no new information has been generated. The data for a particular story or article will need to have a date stamp to indicate to the user the currency of the information. These and other logistical features will become apparent with the use of the system.

As shown above, the receiver may be powered to continuously operate “24 hours a day” and receive a transmitted broadcast signal. This permits the receiver to “receive a continuous update of the broadcast database.” Because the broadcast database is continuously updated with “current” information (e.g., “news”), Applicant respectfully submits the skilled artisan would understand that tuner may receive “the transmitted broadcast signal containing data” and the processor may “store[s] the data as a database in the memory or update[s] the database according to the data,” as recited in claim 1.

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Accordingly, Applicant respectfully submits the skilled artisan would reasonably conclude that the inventor was in possession of the subject matter recited in claims 1 and 58, as the specification expressly describes continuously updating the broadcast database with current information, and thus the specification expressly, implicitly, and inherently describes that that tuner may receive “the transmitted broadcast signal containing data” and the processor may “store[s] the data as a database in the memory or update[s] the database according to the data,” as recited in claim 1 (and similarly claim 58). Therefore, claims 1 and 33-64 satisfy 35 U.S.C. § 112, first paragraph.

**Claim Rejections - 35 U.S.C. § 103**

**Claims 1, 33-44, 52, 54-56, 58-61, and 92 are rejected under 35 U.S.C. § 103(a) as being unpatentable over De Bey (WO 99/03112) in view of Yoshio et al. (JP 04-310631, hereinafter “Yoshio”) and Browne et al. (WO 92/22983, hereinafter “Browne”).** Applicant respectfully traverses the rejection.

Claim 1: Independent claim 1 recites, *inter alia* (emphasis added):

a tuner that receives the transmitted broadcast signal, the transmitted broadcast signal containing data;

a memory, coupled to the tuner;

a processor, coupled to the tuner and the memory by signal lines, that processes the received broadcast signal to obtain the data, stores the data as a database in the memory or updates the database according to the data, provides a user interface including a set of menus describing the database and for accepting selections from the set of menus, selects data from the database in response to the accepted selections, and provides the selected data in digital form;

a speech synthesizer that converts an alphanumeric data to voice data, if the data is the alphanumeric data;

an audio amplifier that amplifies an audio data and outputs the amplified audio data to a loudspeaker, if the data is the audio data; and

a switch that provides the data to the speech synthesizer or the audio amplifier.

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According to a non-limiting embodiment discussed at page 5, line 25, to page 6, line 8, of the filed specification, "...switch 46 controlled by microcontroller 20 determines whether the system is responding to original alphanumeric data or compressed audio data. When alphanumeric data is being transmitted, the alphanumeric data is fed into a speech synthesizer 45 whose audio output is connected to switch 46 for connection of the audio output to audio amplifier 36." Thus, dual transmissions, including the transmission of alphanumeric data and audio data, can be processed with the aid of switch 46.

The combination of De Bey, Yoshio, and Browne fails to teach or suggest the combination of features recited in claim 1, including the "switch that provides the data to the speech synthesizer or the audio amplifier," the "speech synthesizer," and the "audio amplifier." Instead, De Bey only describes a video on demand service that receives "audio visual material" (*see e.g.*, De Bey, p. 8, ll. 3-14), Yoshio only describes receiving voice data (*see* Yoshi, 2<sup>nd</sup> Translation, p. 26, ¶ 12, "...audio information...news is recorded from a human voice...weather forecast or stock market information is inputted by utilizing mechanical voice synthesizing"), and Browne only describes recording video and audio programming (*see e.g.*, Browne, p. 6, ll. 13-16, "video with audio programming"). There is no teaching or suggestion of any switch for providing "alphanumeric data" to a "speech synthesizer...if the data is the alphanumeric data" or providing "audio data" to an "audio amplifier...if the data is the audio data," as recited in claim 1. Rather, De Bey, Yoshio, and Browne merely contemplate general audio data, which the skilled artisan would not understand to be analogous to the "alphanumeric data" of claim 1.

As a result, even if De Bey, Yoshio, and Browne could have somehow been combined, the combination of De Bey, Yoshio, and Browne would still fail to teach or suggest the

combination of features recited in claim 1. Therefore, claim 1 and its dependent claims are patentable over the combination of De Bey, Yoshio, and Browne for at least these reasons.

Claim 58: As discussed above, the receiver may be powered to continuously operate “24 hours a day” and receive a transmitted broadcast signal. This permits the receiver to “receive a continuous update of the broadcast database,” and thus the broadcast database is continuously updated with “current” information (*e.g.*, “news”). Independent claim 58 concerns a related configuration and recites, *inter alia* (emphasis added):

controlling a tuner to receive a broadcast signal including data;  
storing the data in a database in memory;  
updating the database if an update data is included in the broadcast signal;  
providing a set of menus describing the database;  
accepting selections from the set of menus;  
selecting data from the database in response to the accepted selection; and  
providing the selected data in digital form.

At page 4 of the Office Action, it is conceded that De Bey and Yoshio fail to teach or suggest the updating, but at page 5 of the Office Action the rejection is based on the assertion that page 7, lines 17 to 19, of Browne allegedly cure the deficient disclosures of De Bey and Yoshio, as shown below:

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the combination to include the “updating” feature, as suggested in Browne, because it would advantageously allow accommodate increased channel capacity from cable, satellite and digital distribution channels, as specifically stated in Browne (Page 7, L. 17-19).

Page 7, lines 14 to 19 of Browne discloses (emphasis added):

The system preferably filters the incoming programming by scanning the input programs on bus 109, overwriting undesired programs, and retaining only desired programs. Such a feature is particularly useful in this era of increased channel capacity from cable, satellite, and digital distribution channels.

As shown above, Browne may overwrite undesired programs on bus 109 and retain only desired programs. This aspect relates to the neural network analysis circuitry 114 of Browne “for assisting the viewer in storing and retrieving desired programs and portions of desired programs” (*see* Browne, p. 7, ll. 7-8). The desired programs are “those programs selected by the user, or as selected by the user’s viewing patterns recognized by neural network analysis circuit 114” which are temporarily cached in buffer 104c (*see* Browne, p. 7, ll. 24-29). Further, “[p]referably, all unchosen programs are overwritten by the next auto recording storage allocation FIFO pass” (*see* Browne, p. 8, ll. 3-5).

Accordingly, the overwriting in Browne is nothing more than management of a linked list of items in the FIFO buffer 104c (*see e.g.*, Browne, p. 8, ll. 10-14). There is no teaching or suggestion that the received signals in Browne are for “updating the database if an update data is included in the broadcast signal.” Rather, the signals are merely “selectively filtered programming” among “a plurality of programs [] received simultaneously” (*see* Browne, p. 7, ll. 9-14) from a variety of input sources (*see* Browne, p. 5, l. 29 - p. 6, l. 12). Along similar lines, because the signals stored in the FIFO buffer 104c of Browne are simply filtered from among whatever signals are received, the buffer 104c in Browne is not updated with “update data.” Instead, Browne merely describes storing the desired programs, which are filtered from the received inputs.

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As a result, Browne fails to teach or suggest the “updating the database if an update data is included in the broadcast signal” recited in claim 58, and hence Brown fails to cure the conceded, deficient disclosures of De Bey and Yoshio. Therefore, claim 58 and its dependent claims are patentable over the combination of De Bey, Yoshio, and Browne for at least these reasons.

**Claims 1, 33-37, 49, 52, 54-56, 58-61, and 92 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lang (U.S. Patent 5,057,932) in view of Yoshio and Browne.**

Applicant respectfully traverses the rejection.

Claim 1: Independent claim 1 recites, *inter alia*, “a speech synthesizer that converts an alphanumeric data to voice data, if the data is the alphanumeric data; an audio amplifier that amplifies an audio data and outputs the amplified audio data to a loudspeaker, if the data is the audio data; and a switch that provides the data to the speech synthesizer or the audio amplifier.”

As discussed above, Yoshio and Browne fail to disclose or suggest such a combination of features including “alphanumeric data.” Lang also fails to disclose or suggest such a combination of features, as Lang merely describes receiving a “standard television composite signal” (*see* Lang, col. 7, ll. 29-32). Therefore, claim 1 and its dependent claims are patentable over the combination of Lang, Yoshio, and Browne for at least these reasons.

Claim 58: Independent claim 58 recites, *inter alia*, “updating the database if an update data is included in the broadcast signal.” At page 18 of the Office Action, it is conceded that Lang and Yoshio fail to teach or suggest the updating recited in claim 58, but at pages 18 and 19 of the Office Action, the rejection is based on the assertion that page 7, lines 17 to 19, of Browne allegedly cure the deficient disclosures of Lang and Yoshio.

However, as discussed previously, the overwriting in Browne is nothing more than management of a linked list of items in the FIFO buffer 104c (*see e.g.*, Browne, p. 8, ll. 10-14). There is no teaching or suggestion that the received signals in Browne are for “updating the database if an update data is included in the broadcast signal.” Rather, the signals are merely “selectively filtered programming” among “a plurality of programs [] received simultaneously” (*see* Browne, p. 7, ll. 9-14) from a variety of input sources (*see* Browne, p. 5, l. 29 - p. 6, l. 12). Along similar lines, because the signals stored in the FIFO buffer 104c of Browne are simply filtered from among whatever signals are received, the buffer 104c in Browne is not updated with “update data.” Instead, Browne merely describes storing the desired programs, which are filtered from the received inputs.

As a result, Browne fails to teach or suggest the “updating the database if an update data is included in the broadcast signal” recited in claim 58, and hence Brown fails to cure the conceded, deficient disclosures of Lang and Yoshio. Therefore, claim 58 and its dependent claims are patentable over the combination of Lang, Yoshio, and Browne for at least these reasons.

**Claims 1, 33-37, 45, 49, and 58-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Browne.** Applicant respectfully traverses the rejection.

Claim 1: Independent claim 1 recites, *inter alia*, “a speech synthesizer that converts an alphanumeric data to voice data, if the data is the alphanumeric data; an audio amplifier that amplifies an audio data and outputs the amplified audio data to a loudspeaker, if the data is the audio data; and a switch that provides the data to the speech synthesizer or the audio amplifier.”



As discussed above, Browne fails to disclose or suggest such a combination of features including “alphanumeric data,” and only describes recording video and audio programming (*see e.g.*, Browne, p. 6, ll. 13-16, “video with audio programming”). Therefore, claim 1 and its dependent claims are patentable over Browne for at least these reasons.

Claim 58: Independent claim 58 recites, *inter alia*, “updating the database if an update data is included in the broadcast signal.” At page 35 of the Office Action, the rejection is based on the assertion that the overwriting at page 7, line 14, to page 8, line 14, of Brown allegedly suggests such a feature, as shown below:

Browne does not explicitly teach that received data includes updated data, and that said data, stored in the database, includes said received updated data (updating the database with the second data in response to receiving the second data).

However, Browne teaches upon receiving new data in the memory, deleting/overwriting the old one (page 7, line 14 – page 8, line 14), thereby suggesting said feature.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Browne to include the “updating” feature, as suggested in Browne, because it would advantageously allow accommodate increased channel capacity from cable, satellite and digital distribution channels, as specifically stated in Browne (Page 7, L. 17-19).

Applicant respectfully disagrees. Browne does not suggest overwriting existing data with “update data” of the existing data, but rather Browne merely describes deleting an existing program “when the storage capacity...is reached” (*see* Browne, p. 19, ll. 15-19). In particular, a program erasure section 301 controls how programs are erased from the storage section 104 (*see* Browne, FIG. 3, p. 18, l. 29 - p. 19, l. 5). For example, if additional storage is required, the oldest available program in the storage section 104 is erased (*see* Browne, p. 19, ll. 6-12).

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Alternatively, only programs that have been viewed may be erased (*see* Browne, p. 19, ll. 19-22). Therefore, at best, Browne merely describes that oldest programs or viewed programs may be erased, with no teaching or suggestion of updating the programs stored in the database. As such, whether the data is an update of existing data, as similarly recited in claim 58, is entirely irrelevant to the removal of programs from the storage in Browne, as Browne does not consider the content of the data to be removed (*i.e.*, “data”) or the content of the data to be stored (*i.e.*, “update data”). Thus, the skilled artisan would not understand the culling of programs “when the storage capacity...is reached” (*see* Browne, p. 19, ll. 15-19) in Browne to be analogous to an updating of programs, as recited in claim 58, and hence Browne does not suggest the updating recited in claim 58.

As a result, Applicant respectfully submits that Browne fails to teach or suggest the combination of features recited in claim 58. Therefore, Applicant respectfully submits that claim 58 and its dependent claims are patentable over Browne for at least these reasons.

**Claim 91 is rejected under 35 U.S.C. § 103(a) as being unpatentable over De Bey in view of Yoshio and Wysong (U.S. Patent 3,922,607).** Applicant respectfully traverses the rejection.

Independent claim 91 recites, *inter alia* (emphasis added):

a tuner that continuously receives the transmitted broadcast signal, the transmitted broadcast signal including data;

a memory, coupled to the tuner, in which the data is stored;

a processor, coupled to the tuner and the memory by signal lines, that processes the received broadcast signal, stores the data as a database in the memory, provides a user interface including a set of menus describing the database and for accepting selections from the set of menus, selects data from the database in response to the accepted selections, and provides the selected data in digital form;

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a speech synthesizer that converts an alphanumeric data to voice data, if the data is the alphanumeric data;

an audio amplifier that amplifies an audio data and outputs the amplified audio data to a loudspeaker, if the data is the audio data; and

a switch that provides the data to the speech synthesizer or the audio amplifier.

The combination of De Bey, Yoshio, and Wysong fails to teach or suggest the combination of features recited in claim 91, including the “switch that provides the data to the speech synthesizer or the audio amplifier,” the “speech synthesizer,” and the “audio amplifier.” Instead, De Bey only describes a video on demand service that receives “audio visual material” (*see e.g.*, De Bey, p. 8, ll. 3-14), Yoshio only describes receiving voice data (*see* Yoshi, 2<sup>nd</sup> Translation, p. 26, ¶ 12, “...audio information...news is recorded from a human voice...weather forecast or stock market information is inputted by utilizing mechanical voice synthesizing”), and Wysong only describes FM broadcasting and “other information, such as background music, commercial messages, educational material, etc.” (*see* Wysong, col. 3, ll. 62-67) modulated on the FM subcarrier. There is no teaching or suggestion of any switch for providing “alphanumeric data” to a “speech synthesizer...if the data is the alphanumeric data” or providing “audio data” to an “audio amplifier...if the data is the audio data,” as recited in claim 1. Rather, De Bey, Yoshio, and Wysong merely contemplate general audio data, which the skilled artisan would not understand to be analogous to the “alphanumeric data” of claim 91.

As a result, even if De Bey, Yoshio, and Wysong could have somehow been combined, the combination of De Bey, Yoshio, and Wysong would still fail to teach or suggest the combination of features recited in claim 91. Therefore, claim 91 and its dependent claims are patentable over the combination of De Bey, Yoshio, and Wysong for at least these reasons.

**Claims 91 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Lang in view of Yoshio and further in view of Wysong.** Applicant respectfully traverses the rejection.

Independent claim 91 recites, *inter alia*, “a speech synthesizer that converts an alphanumeric data to voice data, if the data is the alphanumeric data; an audio amplifier that amplifies an audio data and outputs the amplified audio data to a loudspeaker, if the data is the audio data; and a switch that provides the data to the speech synthesizer or the audio amplifier.”

As discussed above, Yoshio and Wysong fail to disclose or suggest such a combination of features including “alphanumeric data.” Lang also fails to disclose or suggest such a combination of features, as Lang merely describes receiving a “standard television composite signal” (*see* Lang, col. 7, ll. 29-32). Therefore, claim 91 and its dependent claims are patentable over the combination of Lang, Yoshio, and Wysong for at least these reasons.

**Claim 91 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Browne in view of Wysong.** Applicant respectfully traverses the rejection.

Independent claim 91 recites, *inter alia*, “a speech synthesizer that converts an alphanumeric data to voice data, if the data is the alphanumeric data; an audio amplifier that amplifies an audio data and outputs the amplified audio data to a loudspeaker, if the data is the audio data; and a switch that provides the data to the speech synthesizer or the audio amplifier.”

As discussed above, Wysong fails to disclose or suggest such a combination of features including “alphanumeric data.” Browne also fails to disclose or suggest such a combination of features, as Browne merely recording video and audio programming (*see e.g.*, Browne, p. 6, ll. 13-16, “video with audio programming”). Therefore, claim 91 and its dependent claims are patentable over the combination of Browne and Wysong for at least these reasons.

**Claims 38-57, 63, 64, 67, 68, 76 are rejected, in one form or another, over various combinations of De Bey, Browne, and Lang in view of Wysong, Yoshio, Official Notice, Rovira (WO 92/10040), Ryan (U.S. Patent 5,590,195), Myers et al. (U.S. Patent 5,272,752), Guenther et al. (U.S. Patent 5,086,510), Benbassat et al. (U.S. Patent 4,700,322), Whitby et al. (GB 2,258,102), and Date (“An introduction to Database Systems”), a specific recounting of which is omitted for the sake of brevity. Applicant respectfully traverses the rejection.**

Applicant respectfully submits that the cited references to Rovira, Myers, Guenther, Benbassat, Whitby, and Date, as well as the taking of Official Notice, fail to cure the deficient disclosures of De Bey, Browne, Lang, Yoshio, and Wysong. Accordingly, Applicant respectfully submits that claims 38-57, 63, 64, 67, 68, and 76 are patentable at least by virtue of their respective dependencies.

To the extent the Examiner rejects claim 63 over Ryan, Applicant respectfully submits that this application is a continuation of U.S. 08/769,092, which is a divisional of U.S. 08/181/394, which is the cited reference to Ryan. **Accordingly, Ryan ‘195 is not available as prior art against the present application.**

**Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,

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